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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,524	09/26/2003	Koji Sakiyama	Q77632	6499
23373	7590	10/01/2004	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			FIGUEROA, FELIX O	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/670,524	SAKIYAMA ET AL.	
	Examiner	Art Unit	
	Felix O. Figueroa	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/26/03</u> | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

The drawings are objected to because they have elements shown in cross section which are not properly crosshatched. Insulating members shown in cross section should be properly crosshatched. See for example insulating covering 5 in Fig.2; and molded part 9 in Figs.5 and 7. It is brought to applicant's attention that the conventional crosshatch for insulating members shown in cross section consist of lines of two different thicknesses alternatively disposed. Correction is required.



The drawings are objected to under 37 CFR 1.84(h)(3) because section lines in drawings should refer to the view number of the sectional view where it is shown. Figure 6 should have section line 7-7 and 8-8. Correction is required.

Figures 11 and 12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 2 and 4-6 are objected to because of the following informalities:

In claim 2 line 2, "the end" lacks antecedent basis. In line 4, "the proximal end portion" lacks antecedent basis. In line 5, "able" should be --cable--.

In claim 4 line 11, "a distal end" should be --said distal end--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipate by Fuchs et al. (US 6,652,293).

Fuchs discloses a connecting structure for auxiliary machinery (10) and cable (15) in which a plurality of conductors (14) are surrounded by an insulating covering and arrayed in a flat configuration (see Fig.4) and an auxiliary machinery (10) that attaches directly to this cable; wherein the auxiliary machinery is provided with a housing (18) being equipped with a board (22) on which electronic components (32,33) are mounted and to which a specific circuitry pattern (not shown) has been formed, a connection terminal (28) that is connected to the circuitry pattern (at 24) on the board and to at

least one conductor among the conductors of the cable (by 27), and a molded part (30,31) for sealing connections between the connection terminal of the housing and the conductors of the cable; and the cable is disposed so as to extend along an outside of the auxiliary machinery. Please note that "auxiliary machinery" is broad enough to encompass various devices, such as the connector of Fuchs. It is also noted that *The American Heritage® Dictionary of the English Language, Fourth Edition* defines "along" as "[o]n a line or course parallel and close to". Thus, Fuchs shows the cable extending "along an outside of the auxiliary machinery".

Regarding claim 3, Fuchs discloses a waterproofing structure for an auxiliary machinery (10) that is directly connected to a cable (15) in which a plurality of conductors (14) are surrounded by an insulating covering and arrayed in a flat configuration (see Fig.4); wherein the auxiliary machinery is provided with a housing (18) being equipped with a board (22) on which electronic components (32,33) are mounted and to which a specific circuitry pattern (not shown) has been formed, a connection terminal (28) that is connected to the circuitry pattern (at 24) on the board and to at least one conductor among the conductors of the cable (by 27); and a molded part (30,31) for sealing connection portion between the connection terminal of the housing and the conductors of the cable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs et al. in view of Boyle (US 5,620,333).

Fuchs discloses the auxiliary machinery being coupled to an end of the cable by directing the end of the cable toward a proximal end portion (right side of Fig.1) of the housing of the auxiliary machinery and connecting the conductors near the end of the cable to a proximal end portion (27) of the connecting terminal along a direction that is perpendicular to axes of the conductors. Fuchs discloses substantially the claimed invention except for the cable laying along the outside of the housing. Boyle teaches a connector having a cable (12) installed so as to lie along the outside of the housing (16,18) extending over a specific distance from the proximal end (top of Fig.1) to a distal end (near bottom of Fig.1) of the housing, and such that the axes of the conductors bend in a direction perpendicular to the side of the housing (at least at the top of Fig1) to provide strain relief to the cable connection. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to place the cable of Fuchs laying along the outside of the housing, as taught by Boyle, to provide strain relief to the cable connection.

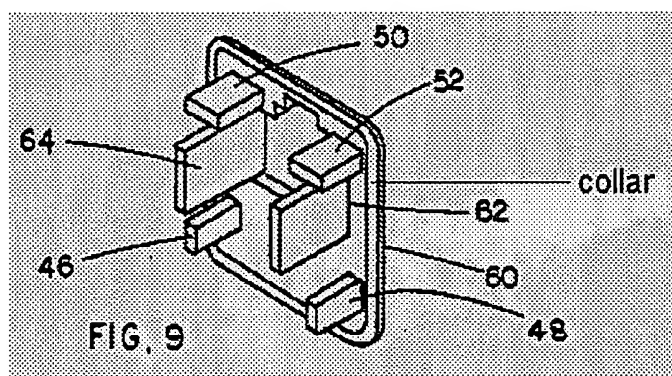
Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs et al. in view of Arnett (US 5,238,426).

Fuchs discloses a mounting structure for auxiliary machinery (10) that is directly coupled to a cable (15) in which a plurality of conductors (14) are surrounded by an insulating covering and arrayed in a flat configuration (see Fig.4); and the auxiliary

machinery is provided with a housing (18) in which a distal end thereof and being equipped with a board (22) on which electronic components (32,33) are mounted and to which a specific circuitry pattern (not shown) has been formed, and a connection terminal (28) which connects with the circuitry pattern on the board and with at least one of the conductors of the cable, and a molded part (30,31) that seals connecting portion between the connection terminal of the housing and the conductors of the cable; and wherein. Fuchs discloses substantially the claimed invention except for the receiving member and the retainer. Arnett teaches a mounting structure for an auxiliary machinery / connector (60) directly coupled to a plurality of conductors (not labeled), mounted to a receiving member (22) with a mounting hole (24); wherein the distal end (right of 60 on Fig.2) of the housing can engage the mounting hole; and a retainer (30) that attaches to the distal end of the housing and an outer periphery (at 32) of which engages in the mounting hole of the receiving member; wherein the auxiliary machinery is mounted to the receiving member by attaching the retainer in the mounting hole from one side of the receiving member (right side), and attaching the housing to the retainer from the other side of the receiving member (left side) to securely mount the auxiliary machinery onto a predetermined usage/working location (see abstract lines 22-26). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to mount the auxiliary machinery of Fuchs on a receiving member, as taught by Arnett, to securely mount the auxiliary machinery onto a predetermined usage/working location.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs and of Arnett, as applied to claim 4 and further in view of Archer (US 5,125,852).

Arnett teaches the retainer being provided with abutting portions (34) for interlocking with a periphery of the mounting hole from a side opposed to a side in which side housing is attached, a projecting part (44) for interlocking with a periphery of the mounting hole from the side in which the housing is attached, and an interlocking projection (at 58) that interlocks with the housing. However, Arnett does not disclose the abutting portions being a collar. Archer discloses an abutting portion (see following figure) in the form of a collar. This arrangement provides a better and more stable assembly between the retainer and the receiving member (20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the abutting members of Arnett in the form of a collar, as taught by Archer, in order to provide a better and more stable assembly with the receiving member.



Regarding claim 6, Arnett teaches the retainer is provided with abutting portions (34) for interlocking with the periphery of the mounting hole from a side opposed to a side in which the housing is attached and an interlocking projection (at 58) that interlocks with the housing, and the auxiliary machinery be mounted and firmly fixed to

the receiving member. See discussion on claim 5 regarding the use of a collar instead of abutting projections. Arnett also discloses one periphery of the mounting hole being held by the collar / abutting portions. Arnett, as modified, discloses substantially the claimed invention except for the other periphery of the mounting hole being held by housing. Archer discloses the peripheries of the mounting hole are held between the collar and a distal end of the housing after it has been mounted in the retainer. This arrangement provides a more stable engagement between the housing and the receiving member. It would have been obvious to one of ordinary skill in the art at the time the invention was made form the housing of abutting a periphery of the receiving hole, so that the peripheries of the mounting holed are held between the collar and the housing, as taught by Archer, in order to provide a more stable engagement between the housing and the receiving member.

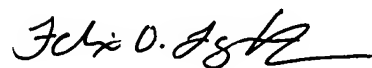
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (571) 272-2003. The examiner can normally be reached on Mon.-Fri., 10:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 Ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ffr

A handwritten signature in black ink, appearing to read "John D. Agt", with a long horizontal flourish extending to the right.